Work Orde	er ID 110714 3:01:24 PM		*110	714*							Page 1	
Revision ID:	D3463-041		Accept	*N900	<b>040</b>	100	<b>)*</b> s		tart top	*N.	• •	
•	Step Weldment Assembly		·						rop	*N.	イン*	
	1/07/14 Start Qty: 4.00	— <del>-</del>		Cust Item I	D:							
Required Date: Reference:		4		Customer:			·:					
Approvals:	Process Plan:	Date: 14/01/08	Tooling:	Da	ate:	_	R		tart	*NF	₹1*	
· · · · · · · · · · · · · · · · · · ·	QC:	Date:	SPC (Y/N):		ate:			S	Stop	*NI	₹2*	
Sequence ID/ Work Center II	Operation Description	1.10	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		eject umber	Insp. Stamp	
Draw Nbr	Revision Nbr											
D3463	Rev B										14-1	02
*1 00* Large Fab	Large Fab	m120859	0.00				4		, _			,
Large Fab	Weld as	ssembly as per dwg D3463 using we a small none welded area on o		463-3 step to								
110	QC9- Inspect visual	per QSI004- Fusion Welds	0.00								DAS	
*110* QC Quality Control	Memo		0.00				9	14.	<u>_</u>	<u> </u>	<del>3-8</del> 8	
i												
120	QC5- Inspect part co	ompleteness to step on W/O	0.00				•				DAS	
*1 20* oc	Memo		0.00				9	14	<del>-</del> 09	-90	9-89	

Quality Control

DQA:			Date:											TART
						<b>WORK ORDER NON</b>	-CC	ONFO	RMANCE / UPDATE			_		AEROSPACE
QA Closed:			Date:							W	ork Order u	odate only		
Work Ord	er:					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
						Rework	1		Skid-tube Crosstube		]	Water Jet		Engineering
Part I	۷o.					Scrap			Machining Small Fab	,	Pro	d. Eng. Coor.		Quality
						Use-as-is	]	Thern	noforming Finishing	3 <u> </u>	Rec/Sto	re/Packaging		Other
NCR I	No.					Suspected Unapproved	]		Large Fab Composite	:	]	Supplier		
Root					Desc	ription of work order update		Initial	Action		Sign &			
Cause	-	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	1	QC Inspector
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Landi	ng (	Gear		<u>, , , , , , , , , , , , , , , , , , , </u>		General	•		<u> </u>					
		Bending				Bend	ŕ	Folio/P	rogram		Outside Dim	ensions [		Pressure/Forced
	-	Centre No	ot Concer	ntric		BOM/Route	-	Grain	· ·		Over/Under		—	Set-up
		Cracks				Broken/Damage/Defect	Г	Hardwa	ire 🦟		Part Incorre		$\overline{}$	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	厂	4	ion Incomplete/Unqualified		Part Lost/Mi	ssing	-	Weld
		1				Contamination /		4	ions Incomplete/Unclear		Part Moved			Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center		Positioned V			
		Heat Trea	it			Cut Too Short		Mislabe	eled		Power Loss/	Surge		Other
		Inspection	n Strip in	Tube		Drawing		Misread	<b>d</b> .			<u>-</u>		
		Marks/Ch	atter			Drill Holes		Off-set						
		Turning S	equence			Finish		Qut of 0	Calibration					
	}	Wave/Tw	ist in Tub	e		Fit/Function		Out of S	Sequence					

DQA:			Date:											DART
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			_		AEROSPACE
QA Closed:			Date:		· · · · · · · · · · · · · · · · · ·					W	ork Order up	odate only		
Work Orde	or.					DISPOSITION			AGAINST	DE	PARTMENT,	/PROCESS		
WOIK OIG	-'' .					Rework	ıl		Skid-tube Crosstube		]	Water Jet		Engineering
Part N	۱o.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.		Quality
	•					Use-as-is			moforming Finishing		Rec/Sto	re/Packaging		Other
NCR N	۱o.					Suspected Unapproved			Large Fab Composite			Supplier		
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Root					Desci	ription of work order update	l	Initial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	1	QC Inspector
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	<u> </u>	Bending				Bend	┝	1	Program		Outside Dim	- t-		Pressure/Forced
-	<u> </u>	Centre No	ot Concer	ntric		BOM/Route	L	Grain		_	Over/Under	F		Set-up
	-	Cracks				Broken/Damage/Defect	L	Hardwa		H	Part Incorre			Temperature/Cure
, ,	_	Crimp/Kir	nk/Ripple	:/Wave	<u> </u>	Burrs		1 '	ion Incomplete/Unqualified		Part Lost/Mi			Weld
		Cuffs			_	Contamination		4	tions Incomplete/Unclear	-	Part Moved	<u>-</u>		Wrong Stock Pulled
	-	Crushing				Countersink	<u></u>	4 '	gned/off center	$\vdash$	Positioned V			Out an
	$\vdash$	Heat Trea			<u> </u>	Cut Too Short	<u> </u>	Mislabe		L	Power Loss/	Surge [		Other
		Inspection		Tube	<u> </u>	Drawing	$\vdash$	Misrea						
	-	Marks/Ch			_	Drill Holes	<u></u>	Off-set						
	<u> </u>	Turning S			<u> </u>	Finish	$\vdash$	-1	Calibration					
	I	Wave/Tw	ist in Tub	oe -	1	Fit/Function	1	Out of	Sequence					

•												_
Work Ord January-07-14		0714		*11(	7714*						Page 3	
Item ID: Revision ID: Item Name:	D3463-041 Step Weldmer	nt Assembly		Accept	*N900	<b>04</b> 0	100	)*	Setup Sta	171	S1* S2*	
Start Date: Required Date Reference:	1/07/14 : 1/07/14	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:			- G			
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):		ate:		1	Run Sta Sto	<b>/ </b>	R1* R2*	
Sequence ID/ Work Center I 160 *160* Packaging	ID	Operation Description Identify as per dwg & St	ock Location:67	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	/ Das 36: / 9-89

0.00

0.00

MCJ 14-07-02 MF 14-7-01

170

\*170\*

Quality Control

QC21- Final Inspection - Work Order Release

Memo

DQA:			Date:										PART
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPI				AEROSPĄCE
QA Closed:			Date:							W	ork Order up	date only	
Work Orde	or.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	:
WOIR Oluc	- ' -				_	Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	Jo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is			noforming	Finishing	_4	re/Packaging	Other
NCR N	No.					Suspected Unapproved			~ <del>  </del>	Composite	1	Supplier	
												· ·	
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Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	QC Inspector
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Offset/Setup													
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							FAI	ULI CA	TEGORY				
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	-	Bending	- <b>.</b>			Bend BOM/Bouto	-	Grain	Program	-	Over/Under		Set-up
	_	Centre No	ot Concer	ntric	$\vdash$	BOM/Route Broken/Damage/Defect	-	Hardwa	aro.	-	Part Incorred	<u> </u>	Temperature/Cure
	-	Crimp /Vir	ak/Binnla	Maya	-	Burrs	-	-}	ire ion Incomplete/Unq	ualified	Part Lost/Mi	<u> </u>	Weld
	—	Crimp/Kir	ik/kippie	y wave	-	Contamination	$\vdash$	1 '	tions Incomplete/Un	·	Part Moved	-	Wrong Stock Pulled
	-	Cuffs Crushing			-	Countersink	-	_	gned/off center	-	Positioned V	L Vrong	
	-	Heat Trea	at .		$\vdash$	Cut Too Short	$\vdash$	Mislabe		-	Power Loss/		Other
	-	Inspection		Tube	$\vdash$	Drawing	$\vdash$	Misrea		L-	اردون درون ا	B- L	1
	-	Marks/Ch	•	, abc		Drill Holes	-	Off-set				<del></del>	
	$\vdash$	Turning S			$\vdash$	Finish		4	Calibration				
	$\vdash$	Wave/Tw				Fit/Function		4	Sequence				

January-07-14 3:01:23 PM

Work Order ID:

110714

Parent Item:

D3463-041

Parent Item Name:

Step Weldment Assembly

**Start Date:** 1/07/14

Required Date: 1/07/14

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP REV. A 05.11.18

IPP revB: replace pressure with wing walk DD EC new issue

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
238-806 SS DOWEL PIN 1" LONG		Purchased	No			100	Each	150.0000	2	8			14-02-1 Js
				Location		Loc Oty	Lo	c Code					19
				ST396		100							/3
					27628	100			***				
				WA002	20119	50 50			16	<del>}</del> -			
03453-3		Manufactured	No	a Pri		100	Each	3.0000	1	4			111 00
Clevis										<u></u>			19-01
				Location		Loc Qty	<u>Lo</u>	c Code	(2)				
				WA002 10		3			(3)	Ť			/
<b>)</b> 3453-5		M 6 . 1	No	<b>~</b> 989	33	100	Each	52.0000	. 1	4			111
Plug		Manufactured	110			100	Lacii	32.0000					<u>14</u> -0.
				Location		Loc Oty	<u>Lo</u>	c Code					14-0.
				WA001		19							/
:				109	132	19							
i				WA002		33				<del></del>			
•				109 • 971	132	20 13			-4	<u> </u>			
)3463-1		Manufactured	No	- 2/1	33)	100	Each	7.0000	1	4			111-
ım		Manufactulea							0.75				
•				Location		Loc Qty	<u>Lo</u>	c Code					14-0
				WA002		7			<del></del>	<del>/</del>			,
				, 100	985 986	5 2			_4				

DQA:			Date:											TART
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			_		AEROSPACE
QA Closed:			Date:							W	ork Order u	odate only		
Work Ord	or.					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
WOIK OIG	٠,,					Rework	ıl		Skid-tube Crosstube		1	Water Jet	٦	Engineering
Part i	No.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	$\dashv$	Quality
	•					Use-as-is			noforming Finishing	$\vdash$	4	re/Packaging	ヿ	Other
NCR I	No.					Suspected Unapproved			Large Fab Composite		]	Supplier		
											T.			
Root					Desci	ription of work order update	ı	Initial	Action		Sign &		Ì	
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Unapproved			<u> </u>											
							FA	ULT CA	TEGORY					
Landi	ng (	Gear				General				_	<b>,</b>	_		
		Bending				Bend		Folio/F	Program	L	Outside Dim	<u> </u>	-	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route	<u> </u>	Grain			Over/Under	<b>}-</b>	_	Set-up
		Cracks				Broken/Damage/Defect	<u></u>	Hardwa	are	L	Part Incorre	ct _	$\dashv$	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Unqualified	<u>_</u>	Part Lost/M	issing	_	Weld
		Cuffs				Contamination		4	tions Incomplete/Unclear		Part Moved	L		Wrong Stock Pulled
		Crushing				Countersink		Misali	gned/off center		Positioned V			
		Heat Trea	nt			Cut Too Short		Mislab	eled	L	Power Loss/	'Surge		Other
		Inspection	n Strip in	Tube		Drawing		Misrea	d					
		Marks/Ch	atter			Drill Holes		Off-set				·		
		Turning S	equence			Finish		Out of	Calibration			<del></del> -		
		Wave/Tw	ist in Tub	oe .		Fit/Function		Out of	Sequence					

# **Picklist Print**

January-07-14 3:01:24 PM

Page 2

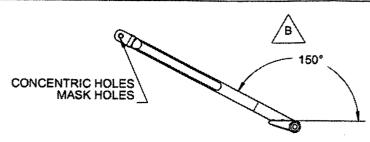
Work Order ID: Parent Item: Parent Item Name:	110714 D3463-041 Step Weldment Assembly						Date: 1/07/14  Qty: 4.00		Required Date: 1/07/14 Required Qty: 4.00
D3463-3	Manufactured	No		100	Each	15.0000	1	4	14-02-17
Step			Location	Loc Oty		Loc Code			<b>B</b> ()
			WA002 (100938) 103566 (97166)	15 6 6 3			3		
<b>D3463-5</b> End Cap	Manufactured	No	•	100	Each	33.0000	2	8	14-02-17
			<b>Location</b> WA002 • 97231 7	Loc Oty 33 33		Loc Code	<del>.</del> . 8 .		
<b>D3463-7</b> Drag Arm	Manufactured	No	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	100	Each	9.0000	1	4	14-02-17 BC
			Location WA002 100961 103584	Loc Oty 9 1 8		Loc Code	4		BC

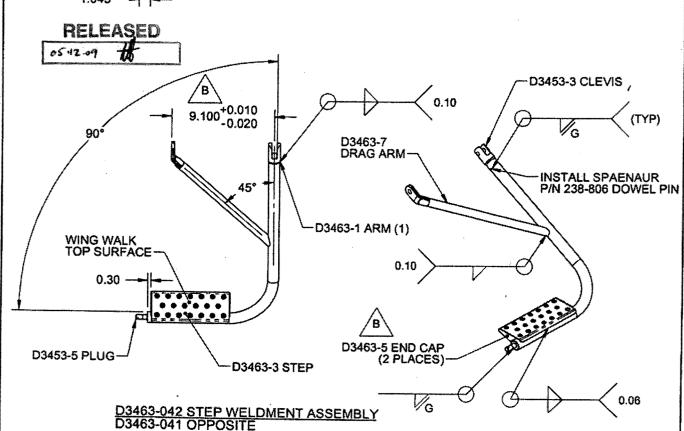
DQA:			Date:											DART
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / UPDATE			-		AEROSPACE
QA Closed:			Date:		_					W	ork Order up	date only		
Work Orde	or.					DISPOSITION			AGAINST	DE	PARTMENT	PROCESS		
WOIK OIG	٠				<del></del>	Rework	ıl		Skid-tube Crosstube		1	Water Jet	$\neg$	Engineering
Part I	No.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	ヿ	Quality
	•					Use-as-is			moforming Finishing		4	e/Packaging	╗	Other
NCR I	No.					Suspected Unapproved			Large Fab Composite		]	Supplier		· 🔲
Root					Desc	ription of work order update		nitial	Action		Sign &			
Cause	ļ	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification		QC Inspector
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		Centre No	ot Concer	ntric		BOM/Route		Grain		L	Over/Under	<b>-</b>	_	Set-up
		Cracks				Broken/Damage/Defect		Hardwa			Part Incorred	<u>-</u>	_	Temperature/Cure
		Crimp/Kii	nk/Ripple	/Wave		Burrs		-i '	ion Incomplete/Unqualified	_	Part Lost/Mi	ssing	$\dashv$	Weld
		Cuffs				Contamination		4	tions Incomplete/Unclear	L	Part Moved	L		Wrong Stock Pulled
		Crushing				Countersink		-	gned/off center	<u>_</u>	Positioned V			
		Heat Trea	at			Cut Too Short		Mislabe			Power Loss/	Surge		Other
	$oxed{oxed}$	Inspectio	n Strip in	Tube		Drawing		Misrea						
		Marks/Ch				Drill Holes	<u></u>	Off-set						
		Turning S	equence			Finish		4	Calibration					
		Wave/Tw	ist in Tub	ре		Fit/Function	1	Out of	Sequence					4.800.100



DESIGN R		DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO, CAN	
CHECK	ED UL	APPROVED	DRAWING NO.	REV. B
	$\mathcal{M}$	例	D3463	SHEET 1 OF 4
DATE			TITLE	SCALE
	05.1	2.05	STEP WELDMENT	1:8
Α	0:	5.09.20	NEW ISSUE	
В	0	5.12.05	REVISE DIM.; D3463-5 WAS D3463-	5F

**INSTALL P/N 238-806** DOWEL PIN (TYP) G MASK THREAD **AREA** 1.045





#### **NOTES:**

- 1) WELD PER DART QSI 004
  2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
  BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) ALL DIMENSIONS ARE IN INCHES
  5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010
  6) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

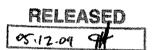
110714 14/01/08

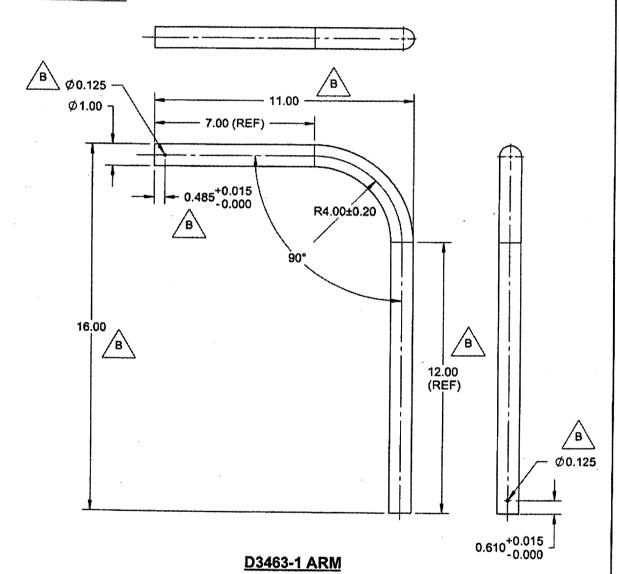
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DESIGN RF	DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO	** ***
CHECKED	APPROVED #	DRAWING NO. D3463	REV. B SHEET 2 OF 4
DATE 05.1	2.05	STEP WELDMENT	SCALE 1:4



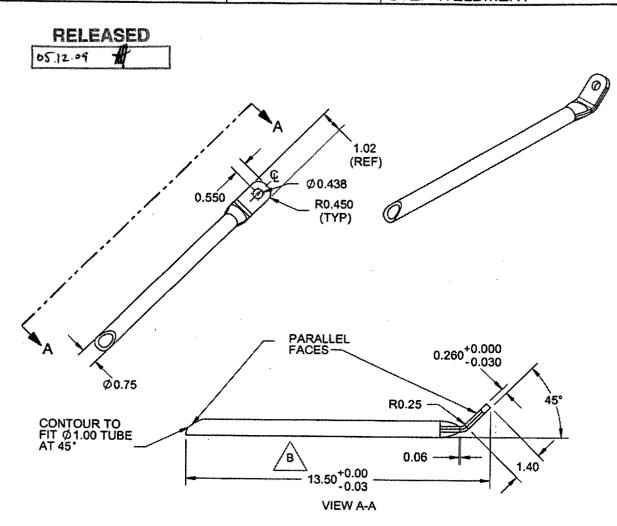


#### NOTES:

- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC. M304TR1.000W.120)
  2) FINISH: NONE
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) ALL DIMENSIONS ARE IN INCHES
  5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.025



DESIGN RF	DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO	
CHECKED	APPROVED	DRAWING NO. D3463	REV. B SHEET 3 OF 4
DATE 05.1	2.05	STEP WELDMENT	SCALE 1:4



## **D3463-7 DRAG ARM**

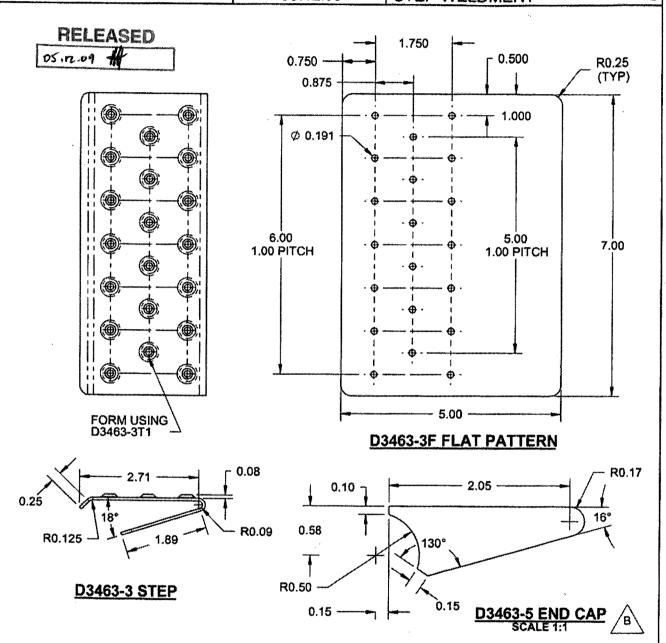
#### NOTES:

- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC. M304TR0.750W.120)
  2) FINISH: NONE
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) ALL DIMENSIONS ARE IN INCHES
  5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3463	REV. B SHEET 4 OF 4
05.12.05		STEP WEI DMENT	SCALE 1:2



#### NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.060 THICK (REF. DART SPEC. M304S16GA)
- 2) FINISH: NONE
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) ALL DIMENSIONS ARE IN INCHES
  5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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